

What is a Dietary Supplement?

Dietary supplements may include the following substances: vitamins, minerals, herbs or other botanicals, amino acids, hormones, as well as product combinations. These products are intended for ingestion as capsules or powders and not as they ordinarily occur in conventional foods, meals, or diets.

Drugs Versus Dietary Supplements

Unlike drugs, dietary supplements are not required to undergo rigorous scientific studies to determine their effectiveness, safety, or appropriate dosages. While some supplements may have health benefits, others can actually be harmful. Some pose serious risks to aviation safety, alertness, or ability to tolerate stress!

Current Air Force Policy

Air Force Instructions (AFIs) do not specifically prohibit the use of dietary supplements except for steroids and hemp oil. However, flying and special operational personnel and those on the PRP program must report use of dietary supplements to their flight surgeon or medical provider, just as they would an over-the-counter medication. All personnel must comply with notification requirements in current AFIs and policy letters.

Guidelines for Using Supplements

- Before selecting a supplement, do your own research on available supplements and the conditions for which they may be effective. However, never diagnose yourself or use a supplement instead of a proven medical treatment.
- Discuss your desire to use a supplement with your medical provider. DO NOT start using a supplement until you have done so.

- If you decide to use a supplement, be sure to read product labels, and closely follow directions for use. Start with a single product, and take the lowest dose. Increase the dosage gradually to no more than the recommended amount.
- Discontinue the supplement if you feel worse after taking it or if you develop new symptoms.
- If you are pregnant, breastfeeding, or taking prescription or FDA-reviewed over-the-counter medication(s), check with your health care provider first. Some supplements can interact adversely with certain drugs and/or foods.
- Purchase supplements from the most reliable producers. Established manufacturers and major companies are more likely to produce a quality product. Terms such as “natural” do not assure safety.
- Be wary of sensational claims. Remember the adage “If it sounds too good to be true, it probably is.”
- If you experience an adverse effect or illness that you think is related to supplement use, immediately contact your flight surgeon or medical provider.
- Check the FDA website for consumer warnings and general information.
<http://vm.cfsan.fda.gov/~dms/supplmnt.html>.

Types of Dietary Supplements

Vitamins and Minerals

These are the most common supplements and may be beneficial for some individuals at high risk for nutrient deficiency.

The Food and Nutrition Board of the Institute of Medicine releases reports which summarize Dietary Reference Intakes (DRIs) for various vitamins and minerals to indicate estimated average requirement, recommended dietary allowances, adequate intakes, and tolerable upper intake levels.

When selecting a vitamin or mineral supplement:

- Check the label and opt for a multivitamin-mineral combination that does not exceed 100% of the Percent Daily Value (DV).
- Look for the “USP” notation on the label. This indicates that the product meets specific standards of quality, purity and potency established by the U.S. Pharmacopoeia.

Herbal Preparations

These preparations are made of plant parts or oils. There are **no standards** for quality, potency, safety or efficacy of herbal products. Identical products may differ markedly between manufacturers or batches. Many drugs are derived from the same plants used in herbal preparations. Therefore, some herbal preparations have the same potential side effects as manufactured drugs.

Steroids and Glandulars

The term steroids refers to a large group of important bioactive substances (to include hormones) manufactured by the body. They also may be synthesized artificially or extracted from the glands of animals. Potency of the steroids may vary widely. Steroid supplements are unnecessary for a healthy person, and pose significant risks of debilitating illness or even death. Air Force regulations prohibit the regular use of steroid substances.

Amino Acids

Amino acids are the components of protein and are ordinarily supplied by food or manufactured by the body. From a nutritional standpoint, most people do not require more amino acids than they eat in a healthy diet. Certain individuals on special diets may benefit from supplements. Synthetic preparations are generally considered safe, although excessive use is considered unwise.

Specific Supplements to Avoid

Vitamins and Minerals

Vitamin and mineral supplements should not be taken in doses for which Tolerable Upper Intake Levels (UL) are established. This is the maximum level of a nutrient that can be consumed without adverse health effects. See Dietary Reference Intakes published by Institute of Medicine for ULs or consult the web resources listed below.

Herbal Preparations

Several herbal preparations present real danger to aviation safety, alertness or physical well-being. These are a few of the herbs known to be potentially dangerous. Do not use any substance containing these herbs without careful consultation with your flight surgeon or operational medicine provider.

Hallucinogens: These may cause hallucinations or disorientation.

California poppy, European mandrake, Kava-kava, Magic mushrooms, Nutmeg (in doses greater than a tablespoon), Periwinkle, Thorn apple, Yohimbe bark

Sedatives: These may cause drowsiness, slow reaction time, or cause disorientation.

Celandine, Deadly nightshade, Hemlock, Henbane, Hops, Indian snakeroot, Jimson weed, Jin bu huan, Opium poppy, Passion flower, Scopolia, Skullcap, Valerian, Wild lettuce, Wolfsbane

Cardiovascular Effects: These may cause heart palpitations or precipitate a heart attack.

Broom, Ephedra, Indian snakeroot, Lily of the valley, Pheasant's eye, Purple foxglove, Squill, Staphanthus, White squill, Yellow foxglove

Liver Poisons: These may permanently damage the liver.

Borage, Chaparral, Colts foot, Comfrey, Germander, Life root, Thread leafed groundsel

Sources of Reliable Information

When researching information on dietary supplements, be sure the information is provided by experts with credentials in medicine or pharmacognosy. Also be cautious of herbal information on the Internet. Much of this information is unreliable and may be nothing more than disguised advertisements. The sources below may be helpful.

National Center for
Complementary and
Alternative Medicine
P.O. Box 8218
Silver Spring, MD 20907-
8218
Phone: 1-888-644-6226
Fax: (301) 495-4957
<http://nccam.nih.gov>

Office of Dietary
Supplements
National Institutes of Health
Building 31, Room 1B25
31 Center Drive, MSC 2086
Bethesda MD 20892-2086
Phone: (301) 435-2920
Fax: (301) 480-1845
[http://dietary-
supplements.info.nih.gov](http://dietary-supplements.info.nih.gov)

American Dietetic
Association
216 W. Jackson Blvd.
Chicago, IL 60606-6995
(312) 899-0040
1-800-366-1655 (recorded
messages)
<http://www.eatright.org>

National Academy Press
2101 Constitution Ave NW
Box 285
Washington DC 20055
Phone: 800-624-6242
<http://www.nap.edu>

United States Air Force
USAFSAM/AF
2602 West Gate Road
Brooks AFB, TX 78235
Phone: (210) 536-2845
Fax: (210) 536-1779
[http://www.brooks.af.m
il/web/af/altmed/HOME
FRAME.htm](http://www.brooks.af.mil/web/af/altmed/HOMEFRAME.htm)

Facts About Dietary Supplements for Aircrew, Special Operational and PRP Personnel

Herbs and Botanicals
Amino Acids
Steroids
Vitamins and Minerals



Using This Brochure:

*This brochure is for information only, applicable
regulatory guidance supersedes information
contained herein.*

This information is **not** intended to take the place of your health care provider. Rather, the information contained herein provides guidance for decision making regarding the consumption of dietary supplements.